

Moon crash: Public yawns, scientists celebrate

October 10 2009, By SETH BORENSTEIN , AP Science Writer



This image provided by NASA shows the first image taken of the moon from the Lunar Crater Observation and Sensing Satellite Friday morning Oct. 9, 2009. Two NASA spacecraft are barreling toward the moon at twice the speed of a bullet, about to crash into a lunar crater in a search for ice. (AP Photo/NASA)

(AP) -- NASA's great lunar fireworks finale fizzled. After gearing up for the space agency's much-hyped mission to hurl two spacecraft into the moon, the public turned away from the sky Friday anything but dazzled. Photos and video of the impact showed little more than a fuzzy white flash.

In social media and live television coverage, many people were disappointed at the lack of spectacle. One person even joked that someone hit the pause button in mission control.

Yet scientists involved in the project were downright gleeful. Sure, there were no immediate pictures of spewing plumes of [lunar dust](#) that could contain water, but, they say, there was something more important: chemical signatures in light waves. That's the real bonanza, not pictures of geyser-like eruptions of debris, the scientists said.

The mission was executed for "a scientific purpose, not to put on a fireworks display for the public," said space consultant Alan Stern, a former [NASA](#) associate administrator for science.

Scientists said the public expected too much. The public grouched as if NASA delivered too little.

The divide was as big as a crater.

"We've been brainwashed by Hollywood to expect the money shot, like 'Deep Impact' or when Bruce Willis saves us from a comet," said physicist and television host Michio Kaku, who was not part of the mission. "Science is not done that way."

But Kaku and other experts also faulted NASA for overhyping the mission, not being honest with the public about the images being a longshot. "They should have put Steven Spielberg in charge," Kaku said.

NASA's [LCROSS](#) mission - short for [Lunar Crater](#) Observation and Sensing Satellite and pronounced L-Cross - had all the makings of a blockbuster. Its main goal was to look for some form of water on the [moon](#) - something that could still turn up in those light wave chemical signatures.

A preliminary review of data from the [Hubble Space Telescope](#) indicated no signs of water in the debris viewed from the blast, NASA said late Friday, but added that more study was needed.

And water on the moon could change NASA's troubled plans for space exploration. It would make revisiting and putting a base on the moon far cheaper because the moon's water could be used, Kaku said.

It was relatively cheap and last-minute by NASA standards: Just \$79 million, in about three years. It was elegant in its simplicity. An empty rocket hull that would normally be space junk remained attached to the plucky little LCROSS until pulling away Thursday night. On Friday morning, it smashed into a crater near the moon's south pole.

Then the little satellite flew through what was supposed to be a six-mile plume of dust from the crash, taking pictures and measuring all sorts of stuff, mostly looking for water. Moments after the first crash, the smaller spacecraft itself hit the moon for a second impact.

The crashes created a man-made crater about one-fifth the size of a football field, Brown University geologist and LCROSS scientist Peter Schultz told The Associated Press.

It all worked perfectly, according to NASA. But there were no pictures of a plume. There may not have been a plume at all, or maybe it was just hidden or too small, said LCROSS scientist Anthony Colaprete.

The spacecraft, instead of spewing six miles of dust straight out, could have compacted the lunar soil - sort of like a rock sinking quickly in water instead of making a massive splash.

"We saw a crater; we saw a flash, so something had to happen in between," Colaprete said. The crater was the aftermath of the crash, and the flash was the impact itself.

The key is not in photographs but in squiggly lines that show those complicated light waves, Colaprete said. Once they are analyzed - a task

that may take weeks - the light waves will show whether water was present at the crash site.

"It wasn't a dud. We got a gold mine of data," said Kaku, a professor at the City College of New York and host of "Sci Q Sundays" on the Science Channel. If those squiggly lines show there is ice just under the surface of the moon, it would make the lack of pictures worth it, he said.

"Ice is more valuable than gold on the moon," Kaku said.

For about a decade, scientists have speculated about buried ice below the moon's poles. Then surprising new research last month indicated that there seem to be tiny amounts of water mixed into the lunar soil all over the moon, making the moon once again a more interesting target for scientists.

But a discovery of ice later this month would not be quite the same as seeing promised flashes through a telescope.

People who got up before dawn to look for the crash at Los Angeles' Griffith Observatory threw confused looks at each other instead. They tried to watch on TV because the skies were not clear enough, but that proved disappointing, too.

Telescope demonstrator Jim Mahon called the celestial show "anticlimactic."

"I was hoping we'd see a flash or a flare, evidence of a plume," he said.

On the Net:

NASA's LCROSS site: <http://www.nasa.gov/lcross>

©2009 The Associated Press. All rights reserved. This material may not be published, broadcast, rewritten or redistributed.

Citation: Moon crash: Public yawns, scientists celebrate (2009, October 10) retrieved 19 April 2024 from <https://phys.org/news/2009-10-moon-scientists-celebrate.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.